

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of)
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1998 Biennial Regulatory Review --)
Conducted Emissions Limits Below)
30 MHz for Equipment Regulated)
Under Parts 15 and 18 of the)
Commission's Rules)

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ET Docket No. 98-80

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**COMMENTS OF
ADAPTIVE NETWORKS, INC.**

Terry G. Mahn, Esq.
Keith A. Barritt, Esq.
FISH & RICHARDSON P.C.
601 13th Street, N.W.
Washington, DC 20005

Counsel for Adaptive Networks, Inc.

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To: The Commission

**COMMENTS OF
ADAPTIVE NETWORKS, INC.**

Adaptive Networks, Inc. ("Adaptive"), through counsel, submits these comments in response to issues raised by the Commission in Paragraph 14 of the Notice of Inquiry, FCC 98-102 (released June 8, 1998) ("NOI"). Adaptive urges the Commission to update and modernize its Part 15 Rules as they apply to carrier current systems operating as unintentional radiators. As discussed below, the Commission's existing Rules are unnecessarily restrictive and impose significant costs on the provision and use of high-speed Internet access services utilizing carrier current technology.

I. Carrier Current Systems Should Be Accorded the Same Benefits as Other Broad-Band Emitters

Adaptive is in the process of developing a high-speed carrier current device that will utilize local (in-building) electrical power lines to transmit data among PCs and similar devices. Adaptive's technology uses a spread spectrum-like signalling protocol to achieve the high data rates desired by Internet users. As a result, emissions from the Adaptive device exhibit the same type of "broadband" profile for which Section 15.107(d) of the Commission's rules customarily grants a 13 dB relaxation in limits.

Rule 15.107(d), however, grants a 13 dB relaxation only for Class A and B digital devices that exhibit broadband emissions. Carrier current systems that operate as unintentional radiators are not covered by 15.107(d), despite the fact that in the order formally adopting the relaxation for broadband emissions the Commission did not specifically exclude carrier current systems from its scope.^{1/} Adaptive believes that the existing rule represents an oversight by the Commission that unfairly penalizes one class of unintentional radiators without any rational basis and should be corrected. Accordingly, Adaptive submits that this 13 dB allowance should apply equally to carrier current systems that are required to meet the 1000 uV limit in the 535-1705 kHz band. Adaptive suggests, therefore, that paragraph (d) of Rule 15.107 be amended to also include a reference to devices governed under paragraph (c).

^{1/} Revision of Part 15 of the Rules to Harmonize the Standards for Digital Devices with International Standards, ET Docket No. 92-152, Report and Order, FCC 93-421 at ¶ 10 and n.10 (rel. Sept. 17, 1993).

II. Radiated Emissions Limits Below 30 MHz are Too Restrictive for High-Speed Data Access in Rural Areas

After spending a considerable amount of time and energy undergoing EMC evaluation of its technology, Adaptive believes the existing limits below 30 MHz are unnecessarily restrictive and will impair the broad penetration of high-speed carrier current products in rural areas where the distances between a customer's home and the low voltage distribution transformer may be great. With a mere 6 dB relaxation in the limits, however, Adaptive believes that carrier current systems' ability to provide high-speed Internet access to both urban and rural areas would increase dramatically.

III. Carrier Current System Limits Should be Reduced 10 dB For Commercial Environments

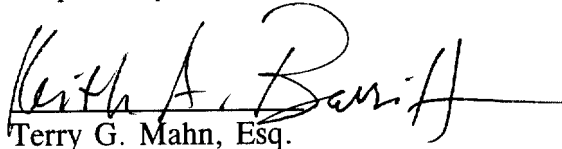
Adaptive urges the Commission to recognize the same distinctions for carrier current systems operating as unintentional radiators that exist for digital devices operating in residential and non-residential environments. For carrier current systems marketed solely for commercial and industrial use, the limits should be relaxed 10 dB above the residential limits across the board, just as they are for digital devices. A two class approach for these devices will promote the development of robust commercial and industrial systems without threatening the residentially-based radio services that the Commission's rules are otherwise designed to protect. Adaptive, therefore, urges the Commissioner to establish conducted and radiated emissions limits for commercial and industrial carrier current systems that are 10 dB higher than the limits for residential systems.

IV. Conclusion

Adaptive has carefully analyzed the cost impact of the Commission's rules on carrier current technology and firmly believes that vast segments of the public will be denied (or overcharged for) high-speed Internet access because such rules have failed to keep pace with the times. Accordingly, Adaptive urges the Commission to institute a rulemaking proceeding to modernize its rules for unintentional carrier current radiators as follows:

- (1) Permit a 13 dB relaxation in conducted limits in the AM radio band for emissions that are determined to be broadband under Rule 15.107(d);
- (2) Relax by 6 dB across the board the radiated emission levels below 30 MHz to promote greater penetration of high-speed carrier current technology in rural areas; and
- (3) Distinguish between residential and commercial/industrial carrier current systems by relaxing the radiated and conducted limits an additional 10 dB above the residential limits for commercial/industrial devices.

Respectfully submitted,



Terry G. Mahn, Esq.
Keith A. Barritt, Esq.
Fish & Richardson P.C.
601 13th Street, N.W.
Washington, DC 20005

Counsel for Adaptive Networks, Inc.

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